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Esterification of carboxylate containing polymers

Description of Technology: This invention concerns a process for esterifying a carboxylate containing polymer, by reacting selected ammonium or sulfoxonium salts of the carboxylate groups to effect esterification.

Patent Listing:

1. **US Patent No. 5,324,790**, Issued June 28, 1994, "Esterification of carboxylate containing polymers"

http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F5324790

Market Potential: Carboxylate containing polymers are often used in products that are in water solution, dispersion, or emulsion, where the carboxylate groups may help solublize or stabilize such mixtures. Such polymers are used for coatings, adhesives, photo and thermal resists. However, once the water is removed from the polymer, it is often desirable to somehow remove or convert the carboxylate groups into less polar moieties to reduce the effect of water on the resulting polymer (e.g., less water swell), or to help coalesce the polymer into a uniform film by removing highly polar regions made up of carboxylate salts. The removal or conversion of carboxylate groups should take place when desired, after most of the water has been removed, and the process should preferably be efficient and proceed under relatively mild conditions.

Benefits:

- **Stabilize mixtures involving polymers used for coatings, adhesives, photo and thermal resists**

Applications:

- **Esterifying carboxylate containing polymer**

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